

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION 10

1200 Sixth Avenue Seattle, Washington 98101

January 25, 1993

Reply to

Attn of: HW-114

Mike Fish, Construction Services Manager Potlatch Corporation P.O. Box 386 St. Maries, Idaho 83861-0386

Dear Mr. Fish:

The U.S. Environmental Protection Agency (EPA), through its contractor, URS Consultants, Inc., conducted field sampling activities at the Avery Railroad Dump and Roundhouse site on August 25 and 26, 1992. URS field staff collected groundwater, surface soil and subsurface soil samples from on-site locations. Sediment samples and an oily seep sediment sample were collected from along the St. Joe River.

Enclosed is a copy of all on-site sample media results as well as sediment sample results. As relayed to you during our recent phone conversation, a report is being written and a copy will be sent to you when it is completed.

If you have any questions, I can be reached at (206) 553-0323.

Sincerely,

Monica Rolluda

Environmental Protection Specialist Superfund Response & Investigations Branch

Enclosures

cc: Clyde Cody, IDHW

Mark Masarik, EPA-IOO (w/o Enclosures) Ken Lustig, Panhandle Health District



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SAMPLE LOCATION

Avery Railroad Dump and Roundhouse Avery Landing - St. Joe River Road

Avery, Idaho
SAMPLE DATE

August 26, 1992

SAMPLE MEDIA

Groundwater

Property Owner

Potlatch Corp. P.O. Box 386

St Maries, Idaho 83861-0386

Site Contact

Mike Fish, Construction Services Manager

(208) 245-6433

	On-Site Mon	toring	Safe Drinkin	
	Well (HC	-3)	Act Stan	dard
Substance Detected	WHC01	Qualifier	MCL	Footnote
Volatile Organics (ug/L)	1 00			
Benzene	20		5	F
Naphthalene	87			NS
Semivolatile Organics (ug/L)				
Acenaphthene	54			NS
Phenanthrene	230			NS
Fluorene	150			NS
Naphthalene, 1-Methyl-	840	-		NS
2-Methylnaphthalene	630	· · · · · · · · · · · · · · · · · · ·		NS
Pyrene	19	J		NS
Fluoroanthene	15	J		NS
Metals (ug/L)	1 22522		II	
Calcium	63500			NS
Magnesium	30200			NS
Sodium	14800			NS
Potassium	8460			NS
Arsenic	102	J	50	
Barium	272		2000	F
Beryllium	2.2	J	4	#
Cadmium	3	J	5	F
Chromium	29.2		100	F
Cobalt	49.1			NS
Copper	171		1300	AL
Lead	54.4		15	AL
Manganese	4020			NS
Nickel	· 69	J	100	F
Silver	13.6			NS
Vanadium	66.7			L
Zinc	717			L
	II 07000	l	li l	L
Aluminum	27600		*	

Qualifier J - Analyte was positively	identified, the value is estimated	L - Listed for Regulation
Notes:	Footnotes:	NS - No standard under this regulation
ND - Analyte was not detected	* - Under Review	P - Proposed (Phase II and V)
ug - microgram (1E-6 gram)	AL - Action Level	MCL - Maximum Contaminant Level
L - liter	F - Final	# - Beryllium MCL effective Jan 1994

SAMPLE LOCATION

St. Joe River

Sediment

Avery, Idaho

Property Owner

Potlatch Corp.

P.O. Box 386

St Maries, Idaho 83861-0386

SAMPLE DATE

SAMPLE MEDIA

August 25, 1992

Site Contact

Mike Fish, Construction Services Manager

(208) 245-6433

	Upstream Sediment - B		Along Site		Upstream Sedim		Along Site Sediment D	1	Oily Seep S	ediment	Oily Seep S	
Substance Detected	SS001	Qualifier	SS002	Qualifier	SS003	Qualifler	SS004	Qualifier	ORS01	Qualifier	ORS02	Qualifier
Volatile Organics (ug/kg)		<u></u> 1							<u></u>	<u></u>	<u> </u>	
Acetone	ND		ND		ND		110	J	ND		ND	
Methylene Chloride	ND		ND		ND		ND		ND		17	J
2-Butanone	ND		ND		ND		8	J	ND	_	ND	
p-isopropyltoluene	ND		7	J	ND		ND		ND		ND	
Toluene	ND		0.2	J	ND		ND		ND		ND	
Chlorobenzene	ND		ND		ND		0.6	J	ND		ND	
Total Xylenes	ND		ND		ND		ND		7	J	4	j
Benzo (a) pyrene	13	J	ND		ND		ND		1700	J	700	J
Semivolatile Organics (ug/kg) ·											
Benzo (a) anthracene	31	J	ND		17	J	80	J	3400	J	5500	J
Isophorone	27	J	110	J	7	J	ND		ND		ND	
Acenaphthene	ND		ND		ND		ND		13000	J	4000	J
Di-n-Butylphthalate	ND		ND		ND		ND		590	J	ND	
Phenanthrene	49	J	180	J	9	J	310	J	14000	j	ИD	
Butylbenzylphthalate	ND		ND		ND		DN		ND		520	J
N-Nitrosodiphenylamine	24	J	86	J	ND		2900	J	ND		ND	
Fluorene	ND		ND		ND		ND		22000	J	ND	
Carbazole	68	J	29	J	ND		ND		ND		ND	
Naphthalene, 1-Methyl-	4	J	84	J	ND		ND		10000	J	8400	
Naphthalene	10	J	ND		ND		ND		ND		ND	
2-Methylnaphthalene	6	j	63	J	ND		89	J	2700	J	2700	ţ
Benzyl Alcohol	ND		1500	J	ND		ND		ND		ND	
bis (2-chloroethyl) Methanol	12	J	ND		ND		ND		ND		ND	
bis (2-ethylhexyi) Phthalate	8600	J	ND		ND	٥	20000		1300	J	ND	

SAMPLE LOCATION

St. Joe River

Avery, Idaho

Property Owner

Potlatch Corp.

P.O. Box 386

St Maries, Idaho 83861-0386

SAMPLE DATE

August 25, 1992

Site Contact

Mike Fish, Construction Services Manager

SAMPLE MEDIA	Sediment	:					Sile Somaci		(208) 245-6433		i vices ivialiagei	
	Upstrean Sediment - E		Along Sit		Upstream Sedim		Along Sit Sediment [Oily Seep S	Sediment	Oily Seep S Dupli	
Substance Detected	SS001	Qualifier	SS002	Qualifier	SS003	Qualifier	SS004	Qualifier	ORS01	Qualifier	ORS02	Qualifler
Semivolatile Organics (ug/l	(g)											
Di-n-Octyl Phthalate	ND		ND		ND		ND		ND		420	J
Anthracene	ND		180	J	ND		ND		ND		ND	
Pyrene	64	J	280	J	8	7	630	7	15000	7	10000	J
Dibenzofuran	3	J	ND		ND.		ND		ND		ND	
Benzo (ghi) perylene	ND		ND		ND		ND		ND		12000	J
Benzo (b) fluoranthene	16	J	ND		ND		ND		4100	٦	2200	J
Fluoroanthene	23	J	ND		6	J	190	J	6000	J	ND	
Chrysene	85	J	ND		• 12	J	610	J	6200		4900	J
Retene	ND		240	J	ND		ND		13000	J	ND	
Total Metals (mg/kg)				· ·								
Selenium	ND.		ND		ND		ND		ND		0.21	J
Mercury	ND		ND		ND ND		0.023	J	ND	·	0.046	J
Calcium	1160		1340		1470		1800		1200	J	1300	
Magnesium	45.3		4150		3590		4010		2870		3130	
Potassium	812	L	916		849		792		649		816	
Arsenic	23		17.2		11	J	24.1		11	J	11	J
Barium	27.6		33.8	J.	31.3		36.7		31.1		30.7	
Beryllium	0.29	J	0.34	J	0.26	J	0.35	J	0.36	J	0.38	J
Cadmium	0.28	J	ND -		ND		0.38	J	ND		0.56	J
Chromium	7.22		7.46		6.39		8.62		6.24		6.18	
Cobalt	9.6		5.95		6.08		6.03		4.3		4.11	
Copper	27.5	J	42		17		107		121		82	J
Lead	25.4		36.5		9.2	J	165		37.3		20.6	
Manganese	203		167		264		164		112		94.2	

SAMPLE LOCATION

St. Joe River

Sediment

Avery, Idaho

Property Owner

Potlatch Corp.

P.O. Box 386

St Maries, Idaho 83861-0386

SAMPLE DATE

SAMPLE MEDIA

August 25, 1992

Site Contact

Mike Fish, Construction Services Manager

(208) 245-6433

	Upstream	River	Along Site	e River	Upstream	River	Along Site		Oily Seep S	ediment	Olly Seep S	ediment
	Sediment - B	ackground	Sedim	ent	Sedime	ent	Sediment D	uplicate		1	Duplie	cate
Substance Detected	SS001	Qualifier	SS002	Qualifier	SS003	Qualifier	SS004	Qualifier	ORS01	Qualifler	ORS02	Qualifier
Total Metals (mg/kg)												
Nickel	12.7		12		8.45		15.2		14.4		15.3	
Silver	3.33	J	3.02	J	2.5	J	3.36	j	1.78		2.13	
Vanadium	14.8		18.4	J	11.5		25.5		23.6		23	
Zinc	47.9		52.1	J	40.2		63.9		47.3	7	87.2	
Aluminum	7380		6440		5840		6340		4680		5520:	
Iron	18800		16300		13200		17900		10300		12000	
						· · · · · · · · · · · · · · · · · · ·	<u> </u>					
Pesticides/PCB (ug/kg)												
PCB - 1260	ND		320		ND		260		760		890	

Qualifiers:

J - Analyte was positively identified, the value is an estimate.

Notes:

ND - Analyte was not detected.

ug - microgram (1E-6 gram)

mg - milligram (1E-3 gram)

kg - kilogram (1E+3 gram)

SAMPLE LOCATION

Avery Railroad Dump and Roundhouse

Avery Landing - St Joe River Road

Avery, Idaho

Property Owner

Potlatch Corp.

P.O. Box 386

St Maries, Idaho 83861-0386

SAMPLE DATE

August 26, 1992

Site Contact

Mike Fish, Construction Services Manager

(208) 245-6433

SAMPLE MEDIA

Surface Soil (0-6 inches)

			Location of	Former	Area Near C	reosote	Along Site	Graded	Along Side	of Former	Along To	p of	Along Side o	f Former
	Backg	round	Fuel Oil	Tank	Logs - Bla	ck Soll	Road Su	rface	RR Build	ings	River Emba	nkment	RR Buildings -	Duplicate
Substance Detected	SS01-1	Qualifier	SS02-1	Qualifier	SS03-1	Qualifler	SS04-1	Qualifier	SS05-1	Qualifier	SS06-1	Qualifler	SS07-1	Qualifier
Vo Organics (ug/kg)						· .								
1,1,1-Trichloroethane	ND		ND		ND		ND ND		ND		ND		0.6	J
Carbon Disulfide	ND		ND		ND		ND		ND		ND		0.1	J
1,1-Dichloroethene	ND		ND		ND		ND		ND		ND		0.4	J
Trichlorofluoromethane	ND		0.5	J	ND		ND		0.4	J	ND		ND	
Methane, Dichlorodifluoro	8	J	23	J	ND		ND		16	ſ	0.4	J	76	J
Ethene, trichloro-	ND		ND		ND		ND		ND		ND		0.1	J
Naphthalene	ND		4		1200		ND		ND		ND		ND	
1,2,4-Trimethylbenzene	ND		1	J	1300		ND		ND		ND		ND	
Ethylbenzene	ND		ND		13	J	ND		ND		ND		ND	
1,3,5-Trimethylbenzene	ND		0.7	J	1800	J	ND		ND		ND		ND	
Toluene	ND		ND		15	J	ND		ND		ND		, ND	
trans-1,2-Dichloroethene	ND		ND		ND		ND		ND		ND		0.5	J
Benzene, 1-Bromo-4-fluoro	ND		ND		ND		ND		87		ND		ND	
Total Xylenes	ND		0.09	. J	400		ND		ND		ND		ND	
														
Semivolatile Organics (ug/k														<u> </u>
Benzo (a) pyrene	110	J	ND		440	J	ND		ND ND		ND		ND	
B (a) anthracene	140	J	100	J	3000		ND		ND		ND		ND	
Isophorone	ND ND		ND		ND ND		13	J	340	·J	83	J	5	J
Acenaphthene	34	J	26	3	2700	J	ND		ND		ND		ND	
Phenanthrene	510		160	J	14000		220	J	120		18	J	65	J
Butylbenzylphthalate	ND		41	J	ND		ND		ND		ND		ND	
N-Nitrosodiphenylamine	74	-	ND		ND		27	J	ND		ND		ND	
Fluorene	31	J	ND		3000		ND		ND		ND		ND	
Naphthalene, 1-Methyl-	140	J	66	J	26000		150	J	40	J	14	J	17	. J
Naphthalene	170	7	22	J	2700	J	93	J	110		18	J	45	. J
2-Methylnaphthalene	160	J	32	J	15000		150	J	48	J	15	J	22	J

SAMPLE LOCATION

Avery Railroad Dump and Roundhouse

Avery Landing - St Joe River Road

Avery, Idaho

Property Owner

Potlatch Corp.

P.O. Box 386

St Maries, Idaho 83861-0386

SAMPLE DATE

August 26, 1992

Site Contact

Mike Fish, Construction Services Manager

(208) 245-6433

SAMPLE MEDIA

Surface Soil (0-6 inches)

	Backg	round	Location of Fuel Oil		Area Near C Logs - Bla		Along Site Road Su		Along Side o		Along To River Emba	-	Along Side o RR Buildings -	
Substance Detected	SS01-1	Qualifier	SS02-1	Qualifier	SS03-1	Qualifier	SS04-1	Qualifier	SS05-1	Qualifier	SS06-1	Qualifier	SS07-1	Qualifier
Selection Organics (ug/i	kg)													
bis (2-chloroethyl) Ether	68	J	ND		ND		ND		ND		ND		ND	
Anthracene	93	J	26	J	120	7	38	J ·	13	j	ND		9	J
Pyrene	460	7	240	J	7000		110	J	25	J	6	J	43	J
Dibenzofuran	160	J	ND		ND		62	J	50	J	11	J	21	J
Benzo (ghi) perylene	240	J	ND		ND		ND		ND		ND		66	J
Indeno (1,2,3-cd) pyrene	160	J	ND		190	J	ND		ND		ND		52	J
Benzo (b) fluoranthene	430	j	110	J	1000	J	ND		39	J	ND		79	J
Fluoroanthene	430	J	110	J	5700	J	120	J	67	J	ND		45	J
Benzo (k) fluoranthene	130	J	ND		ND		ND		ND		ND		ND	
Acenaphthylene	16	J	ND		30	J	ND		ND		. ND		ND	
Chrysene	440	J	160	J	3300		ND		40	J	ND		ND	
Retene	240	J	ND		. ND		140	J	78	J	ND		28	J
Total Metals (mg/kg)	1									ı				
Mercury	0.065	J	ND_		ND		0.021	J	ND ND		ND		ND	
Calcium	4220		2910		2520		4920		2970		10800	J	3060	_
Megnesium	2720		12600		2680		4680		5890		11000	J	6180	
Pelum	948	·	2740		601		1710		2810		4800		2870	
Arsenic	18.5		36.4		9.6	J	21.1		29.7		39.6		44.5	
Barium	145		76.3		68.7		91.9		98.4		83.3		98.6	
Beryllium	0,46	J ·	0.836		0.28	J	0.42	J	0.56		0.795		0.599	
Cadmium	1.58		0.32	J	0.71	J	1.5	J	0.35	J	0.58	J	0.29	J
Chromium	16.1		13.2		10.6		15.3		10.5		15.7		10.8	
Cobalt	5.97		8.92		4.9		8.22		10.2		9.99		10.2	
Copper	180		17.8		76.6		56		34.4		38.3		31.6	

SAMPLE LOCATION

Avery Railroad Dump and Roundhouse

Avery Landing - St Joe River Road

Avery, Idaho

Property Owner

Pottatch Corp.

P.O. Box 386

St Maries, Idaho 83861-0386 . -

SAMPLE DATE

August 26, 1992

Site Contact

Mike Fish, Construction Services Manager

(208) 245-6433

SAMPLE MEDIA

Surface Soil (0-6 inches)

			Location of	Former	Area Near C	reosote	Along Site	Graded	Along Side o	f Former	Along To	p of	Along Side o	f Former
	Backgı	round	Fuel Oil	Tank	Logs - Bla	ck Soil	Road Su	rface	RR Build	ings	River Emba	nkment	RR Bulldings -	Duplicate
Substance Detected	SS01-1	Qualifier	SS02-1	Qualifier	SS03-1	Qualifier	SS04-1	Qualifler	SS05-1	Qualifler	SS06-1	Qualifler	SS07-1	Qualifier
T Metals (mg/kg)														
Leau	235		394		87.5		60.6		29.2		61.6		24.8	
Manganese	326		653		163		322		491		575	J	491	
Nickel	16.6		15.1		15.1		13.8		16		16.3		15.3	
Silver	5.02	J	4.33	•	2.25	J	3.28		4.4	J	3.39		4.31	
Vanadium	21.5		19.8		18.8		16.2		18.2		17.8	J	18.1	
Zinc	187		24.6		100		196		50		75.4	J	50.3	
Aluminum	5500		14700		5060		7710		12700		13000		12600	
Iron	20200		22900		12500		17600		24000		18200		23800	
Pesticides/PCB (ug/kg)													:	
PCB - 1260	390		ND		350		410		ND		ND		ND	

Qualifiers:

J - Analyte was positively identified, the value is an estimate.

Notes:

ND - Analyte was not detected.

ug - microgram (1E-6 gram)

illigram (1E-3 gram)

kg - kilogram (1E+3 gram)

SAMPLE LOCATION

Avery Railroad Dump and Roundhouse

Avery Landing - St Joe River Road

Avery, Idaho

Property Owner

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SAMPLE DATE

August 26, 1992

Site Contact

Mike Fish, Construction Services Manager

(208) 245-6433

SAMPLE MEDIA

Subsurface Soil (6-12 inches)

	Backgr	round	Location of Fuel Oil		Area Near C Logs - Bla		Along Site Road Su		Along Side		Along To River Emba	•	Along Side o	
Substance Detected	SS01-2	Qualifier	SS02-2	Qualifier	SS03-2	Qualifier	SS04-2	Qualifier	SS05-2	Qualifier	SS06-2	Qualifier	SS07-2	Qualifler
V Organics (ug/kg)														
1,1,1-Trichloroethane	ND		ПD		ND		ND		ND		0.6	J	1	J
Methylene Chloride	ND		3	L	ND		ND		ND		ND		ND	
1,1-Dichloroethene	ND		0.1	J	ND		ND		ND		ND		ND	
Trichlorofluoromethane	ND		0.7	J	ND		ND		0.7	J	ND		ND	
Methane, Dichlorodifluoro	14	J	ND		DИ		ND		14	J	ND		. ND	
1,2,3-Trichlorobenzene	ND		ND		ND		ND		ND		4	J	ND	
Naphthalene	ND		1	J	6400		ND		ND		ND		2	J
1,2,4-Trimethylbenzene	ND	-	ND		5900		ND		ND		ND		ND	
1,2-Dibromo-3-chloropropen	ND		ND		ND		ND		ND		16		ND	
p-Isopropyltoluene	ND		ND		1500		ND		ND		ND		ND	
Ethylbenzene	ND		ND		65	J	ND		ND		ND		ND	
Benzene, propyl-	ND		ND		110	J	ND		ND		ND		ND	
1,3,5-Trimethylbenzene	ND		ND		5000	J	ND		ND		ND		ND	
Toluene	0.5	J	ND		49	J	ND		ND		ND		ND	
1,2,4-Trichlorobenzene	ND		ND		ND		ND		ND		8	j	ND	
Total Xylenes	ND		Q		1620		ND		ND		ND		· ND	
olatile Organics (ug/kg														
Benzo (a) pyrene	240	J	ND		740	J	16	J	650		1600		91	J
Dibenzo (a,h) anthracene	ND		ND		ND		ND		170	j	210	J	ND	
Benzo (a) anthracene	310	J	ND		2200		28	J	770		1500		270	J
Isophorone	ND		. 8	J	ND		47	J	50	J	3000		820	J
Acenaphthene	72	J	ND		8700	J	ND		ND		ND		91	J
Phenanthrene	1200		9	J	31000		27	J	6800		680		ND	
N-Nitrosodiphenylamine	ND		17	J	ND		ND		92	J	ND		84	J
Fluorene	58	J	ND		11000		2	J	68	J	ND		31	J
Carbazole	ND		ND		ND		ND		350	J	ND		130	

SAMPLE LOCATION

Avery Railroad Dump and Roundhouse

Avery Landing - St Joe River Road

Avery, Idaho

Property Owner

Potlatch Corp.

P.O. Box 386

St Maries, Idaho 83861-0386

SAMPLE DATE

August 26, 1992

Site Contact

Mike Fish, Construction Services Manager

(208) 245-6433

SAMPLE MEDIA

Subsurface Soil (6-12 inches)

			Location of		Area Near C	reosote	. Along Site	Graded	Along Side	f Former	Along To	p of	Along Side o	f Former
ł	Backg	round	Fuel Oil	Tank	Logs - Bla	ck Soil	Road Su	rface	RR Build	ings	River Embe	nkment	RR Buildings -	Duplicate
Substance Detected	SS01-2	Qualifier	SS02-2	Qualifier	SS03-2	Qualifier	SS04-2	Qualifier	SS05-2	Qualifier	SS06-2	Qualifler	SS07-2	Qualifier
S olatile Organics (ug/k			· · · · · · · · · · · · · · · · · · ·											
Naphthalene, 1-Methyl-	370	J	ND		55000		14	J	1900		190		1800	
Naphthalene	300	J	ND.		6000		11	J	5700		190		4400	
2-Methylnaphthalene	360	J	ND.		46000		16	J	2500		250		2200	
bis (2-ethylhexyl) Phthalate	ND		ND		6100	J	ND		ND		ND		ND	
Anthracene	194	j	ND.		2600	J	3	J	460	J	63	J	220	7
1,2,4-Trichlorobenzene	ND		ND		ND		ND		ND		2900		ND	
Pyrene	1300		9	J	5900		39	J	3400		3200		850	
Dibenzofuran	390	7	ND		ND		5	J	ND		51	J	2500	
Benzo (ghi) perylene	470	J	ND		ND		ND		910		1300		ND	
Indeno (1,2,3-cd) pyrene	260	٦	ND		ND		16	J	930		1100		170	J
Benzo (b) fluoranthene	610	J	ND		470	J	43	J	2300		1800	j	760	
Fluoroanthene	1100	7	9	J	1700		50	J	3400		2300		1700	
Benzo (k) fluoranthene	ND		ND		ND		20	J	580		670	J	210	J
Acenaphthylene	ND		ND		ND		ND		ND		37	J	24	J
Chrysene	620	J	. ND		2500		32	J	1800		1700	J	670	
Retene	870	J	ND		ND		37	J	1600		450	J	1100	
Metals (mg/kg)														
Serenium	ND		ND		ND		ND		ND		0.45	J	0.46	J
Mercury	0.12	J	ND		ND		0.04	J	0.037	J	0.58	J	0.057	J
Calcium	3250		2070		1460		4420		5400		4510	J	8050	J
Magnesium	2580		5260		2070		6410		3590		3580		3360	
Potassium	437		1370		240		2490		1150		687		933	
Arsenic	10	J	68.8		5.3	7	40.7		46.5		19.9		39.9	
Barium	148		42.8		21		137		247		298		597	
Beryllium	0.43	J	0.502		0.37	J	0.572		0.859		1.04		1.45	

SAMPLE LOCATION

Avery Railroad Dump and Roundhouse

Avery Landing - St Joe River Road

Avery, Idaho

Property Owner

Potlatch Corp.

P.O. Box 386

St Maries, Idaho 83861-0386

SAMPLE DATE

August 26, 1992

Site Contact

Mike Fish, Construction Services Manager

(208) 245-6433

SAMPLE MEDIA

Subsurface Soil (6-12 inches)

	A		Location of	Former	Area Near C	reosote	Along Site	Graded	Along Side o	f Former	Along To	p of	Along Side o	f Former
	Backg	round	Fuel Oil	Tank	Logs - Bla	ck Soll	Road Su	rface	RR Build	ings	River Emba	nkment	RR Buildings -	Duplicate
Substance Detected	SS01-2	Qualifier	SS02-2	Qualifier	SS03-2	Qualifier	SS04-2	Qualifier	SS05-2	Qualifier	SS06-2	Qualifier	SS07-2	Qualifier
Tetals (mg/kg)			-											
Cadmium	0.39	J	0.33	J	0.33	J	0.49	J	0.58	J	0.81	J	0.51	J
Chromium	11.8		10.5		8.77		10.3		7.94		10.1		9.94	
Cobalt	4.74		9.63		4.79		9.21		8.17		9.85		8.58	
Copper	225		15.1		43.6		34.8		123		383		184	
Lead	211		25.8		31		47.8		225		533	J	292	
Manganese	264		323		96		502		401		317		371	
Nickel	15.9		12.2		16.9		13.7		23.3		71.8	J	33.9	
Silver	3.53	· J	3.67		1.35	J	3.6		3,17	J	3.03	J	3.62	J
Vanadium	20.4		13.3		46.2		15.3	<i>p</i> *	33.6		75.2		49.1	
Zinc	65.8		15.9		41.9		97.8		78.4		403	J	63.7	J
Aluminum	4180		8420		3880		12500		7390		6940		10200	
Iron	18700		20300		8210		19600		17800		17400		20400	
Pesticides/PCB (ug/kg)														
PCB - 1260	230		ND		170		150		370		86700		130	

Qualifiers:

alyte was positively identified, the value is an estimate.

lotes:

ND - Analyte was not detected.

ug - microgram (1E-6 gram)

mg - milligram (1E-3 gram)

kg - kilogram (1E+3 gram)